

ADDENDUM NO. 1

Page No. 1 of 1

Date: June 6, 2025

PROJECT: PRC Station Replacements

LOCATION: Mackenzie, BC

OWNER: District of Mackenzie

This Addendum is issued prior to the close of the RFP to revise and/or clarify parts of the Contract Documents. This Addendum is part of the Contract Documents and in the case of conflict with the balance of the Documents, this Addendum shall govern.

- Design changes as required for Ministry of Transportation works within a right of way. Disturbance of Highway Road structure is now proposed limited for use of contractor supplied shoring systems.
- Owner is responsible for MoT and NHA permitting.
- Backfill of excavation adjacent to road structure changed to structural SGSB.
- Changes to measurement and payment as required.
- Modified Appendix 1 bid submission for as required.
- Added site specific PRV chamber shop drawing.

Documents included with this addendum.

- Tender Drawing Package, Revision 1, 7 pages.
- Form - Appendix 1. , 1 page.
- Revised Measurement and Payment, 6 pages.

End of Addendum No. 1

District of Mackenzie

2025 PRV Station Replacement

Appendix 1 Schedule of Approximate Quantities

Job #	1044-79
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Description	Units	Quantity	Unit Price	Extended Amount
SECTION 1 - General				
1.1 Mobilization & Demobilization	LS	1		
1.2 Demolition and Salvage	LS	1		
1.3 Hydro Vector Locates	LS	1		
1.4 Traffic Control	LS	1		
SECTION 2 - Earthworks				
2.1 Stripping	Sq.m	83		
2.3 SGSB Excavation Backfill	Cu.m	30		
SECTION 3 - Water Works				
3.1 PRV Station, Supply and Installation.	LS	1		
3.2 Isolation and Connection to Existing Mains.	LS	1		
SECTION 4 -Miscellaneous				
4.1 150mm Thickness Topsoil and Grass Seeding	LS	1		
4.2 Sump Pump Storm Discharge Line	LS	1		
Subtotal				
GST				
TOTAL				

Revised per Addendum 1.

Note:

Refer to the corresponding Measurement and Payment Description for a scope of work for each listed item.

Quantities are estimated based on assumed limits of excavation/disturbance.

CONTRACT SPECIFIC MEASUREMENT AND PAYMENT DESCRIPTIONS:

Update per Addendum #1

Section 1 - General Requirements.

1.1 Mobilization and Demobilization

This item shall consist of any startup costs, moving equipment, materials, offices, and temporary facilities and other items onsite and expenses associated with the project as well as performance of. Only one mobilization at the beginning of the project, one demobilization and clean-up at the end of the project, and, regardless of the project schedule and constraints

Payment

- Payment will be made at the Contract Lump Sum Price shown in the "Schedule of Quantities and Prices" with 50% of the Lump Sum paid at first progress, 25% of the Lump Sum paid prorated on a monthly basis based on the percentage of the Contract completed and 25% of the Lump Sum paid following Substantial Completion.

Measurement

- As a percentage complete.

1.2 Demolition and Salvage

This item shall include the demolition, salvage, relocations, or removal of existing infrastructure including but not limited to existing curb, gutter, existing PRV stations including all components of the exiting vault/manhole. The unit price includes all costs associated with the removal, loading, hauling, stockpiling, relocation and reinstallation, disposal of material to an approved off-site location and backfilling of resulting excavations resulting from removal.

The Contractor shall be responsible for all necessary permits and fees for the transportation and disposal of the demolition waste. The district will not receive concrete rubble or other wastes to their gravel pits or other facilities.

Payment

- Lump sum.

Measurement

- As a percentage complete.

1.3 Hydro Vector Locates

This item shall consist of any and all costs for personnel, equipment, and performance of hydro vector or similar, safe method excavation as the contractor may deem necessary for safe performance of work and protection of existing installations and underground utilities. Item includes underground locates, disposal of any resulting wastes, backfill of any resulting holes, survey of locations and elevations, reporting and coordinating of locations with engineer.

Payment

- Lump Sum paid prorated on a monthly basis based on the percentage of completed.

Measurement

- As a percentage complete.

1.4 Traffic Control

This item shall consist of all costs for personnel, equipment, and materials required for implementation of a lane closure on a Provincial Highway, and traffic warning and control signage in the community during the course of construction.

Work includes preparation of a written Traffic Management Plan meeting the requirements of the Ministry of Transportation.

Payment

- Lump Sum paid prorated on a monthly basis based on the percentage of completed.

Measurement

- As a percentage complete.

Section 2 – Earthworks.

2.1 Stripping.

This item shall consist of the all equipment, operators and materials required to strip the excavation footprint of existing organic and unsuitable materials. Work includes excavation, stockpiling, loading, hauling and offsite disposal at an approved offsite disposal area.

Work includes survey and layout as required

Payment

- Sq.m

Measurement

- Design area. With no payment for materials removed beyond the neat lines of the design.

2.1 SGSB Excavation Backfill.

This item shall consist of the production supply and installation of aggregates as required for backfill of those portions of excavation within the structural area of the highway and highway curb/gutter. The unit price will include production, supply, delivery, loading, hauling, placing in uniform layers, compacting across the entire installation width, moisture conditioning of materials, final grading and shaping, and all other incidental work for which separate payment is not specified elsewhere.

Item includes all required materials testing, density testing and associated reporting.

Payment

- Per Cubic Meter

Measurement

- Design volume as calculated the engineer. With no payment for materials placed beyond the requirements of the design.

Section 3 – Water Works

3.1 PRV Station, Supply and Installations

This item shall consist of the supply and installation of a new PRV Station as per the contract. Works will include full compensation for all costs associated with the labor, materials, equipment and appurtenances including but not limited to the following.

- **Preparation of engineered shoring plans for approval.**
- **Implementation of shoring plans and shoring systems.**
- Provision of shop drawings for approval.
- Excavation, temporary stockpiling of excavated materials, moisture conditioning of excavated materials in preparation for backfilling, backfill of excavation, compaction of backfill materials, loading, hauling , offsite disposal of surplus excavation and final grading.
- Control and management of trenchline and excavation groundwater water infiltration.
- Supply, loading, hauling, delivery, offloading and crane installation of a concrete PRV chamber, risers, frame, lid.
- Supply, loading, hauling, delivery, offloading and installation of all fittings, valves, stands, ladders, vent pipes and other all associated and listed internal components of the PRV Chamber.
- Supply, loading, hauling, delivery, offloading and installation of all fittings for proposed tie in watermain and all fittings external to the PRV Station.
- Production, supply, delivery, loading, hauling, placing, moisture conditioning, compaction of bedding materials.
- Protection of existing infrastructure,
- Grouting, gasketing, taping and sealing of chamber.
- Flushing, pressure testing, disinfection, insitu and lab bacteriological testing and commissioning of station.
- Supply of O&M documents for the station.

Payment

- Lump sum.

Measurement

- As a percentage complete.

3.2 Isolation and Connection to Existing Mains

This item consists of the connection to existing water mains at the locations specified in the Contract Documents.

The unit price shall include locating and confirming existing water main valves, Hydrovactor locating and excavation of the existing water main. Flushing of existing mains, prevention of backflow into existing mains and all other works necessary to accomplish connection to existing potable water system in accordance with AWWA standards for work on potable water systems.

The item also includes preparation and submission of a AWWA compliant watermain isolation plan for approval by the district, coordination and scheduling of district personnel for isolation work, preparation of notification to public for any interruptions of service and assistance to the district in performance of actual isolation. The district will be reasonable for actual isolation.

Payment

- Lump Sum.

Measurement

- As a percentage complete.

Section 4 – Miscellaneous

4.1 75mm Thickness Topsoil and Grass Seeding

This item consists of the provision and installation of topsoil and hand seeding within all disturbed areas. All materials shall be supplied in accordance with the Contract Drawings and with the MoTI Section 757 Technical Specifications.

The unit price shall be full compensation for all costs associated with the labour, materials, equipment and appurtenances necessary to haul, place and grade topsoil, uniformly apply hand seed mixture, watering of seeded area and all other incidental work for which separate payment is not specified elsewhere. The hydroseeding application shall be in accordance with the Contract Drawings.

Payment

- Lump sum.

Measurement

- As a percentage complete.

4.2 Sump Pump Storm Discharge Line

This item shall consist of the supply and installation of sewer pipe as indicated on the Contract Drawings. The work also includes the supply of pipe fittings and required installation materials, pipe laying, connection to proposed manhole or main, grouting, jointing as per the Contract Drawings, and all other incidental work for which separate payment is not specified elsewhere.

Payment

- Lump sum.

Measurement

- As a percentage complete.



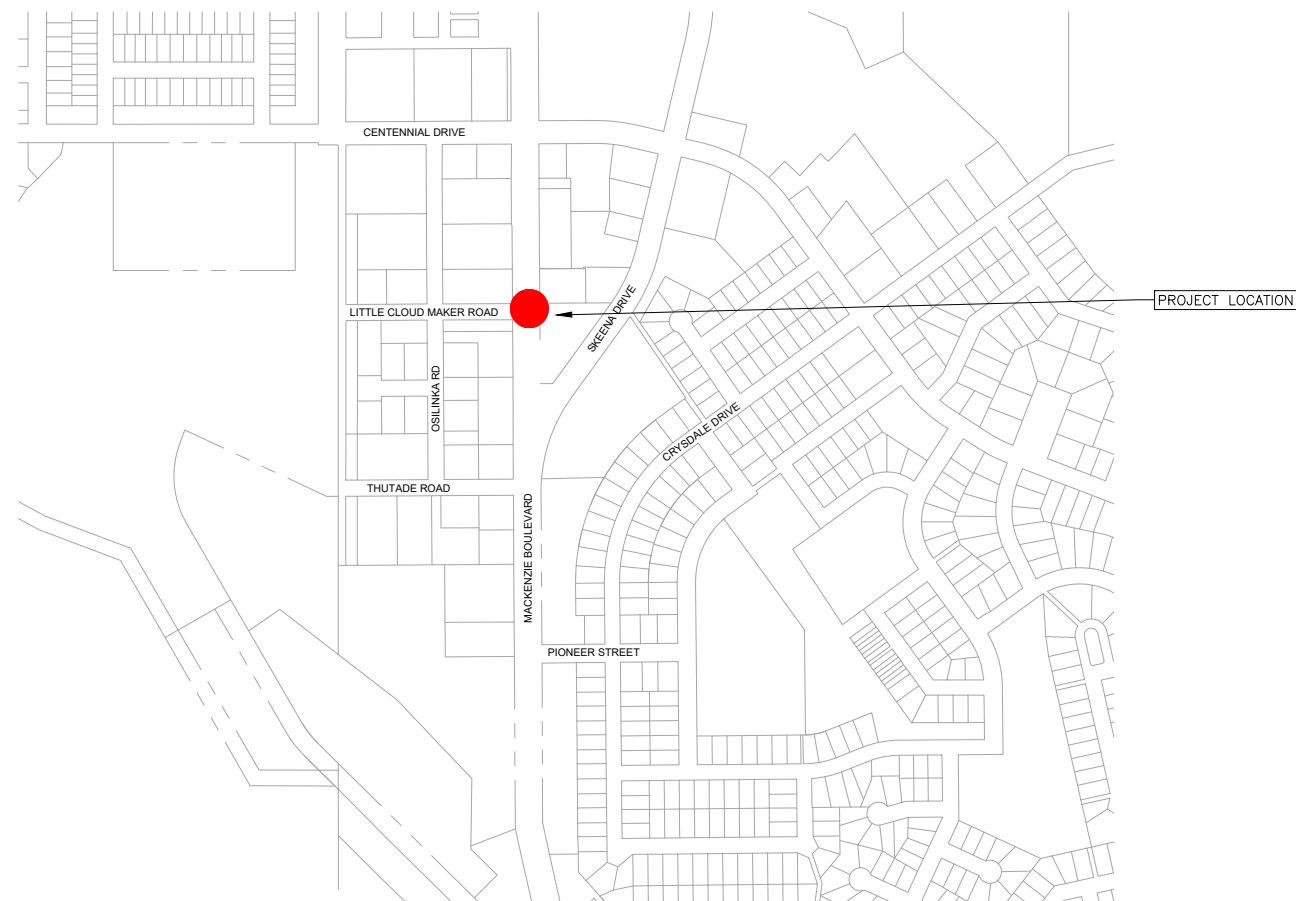
DISTRICT OF MACKENZIE

MACKENZIE BLVD. & LITTLE CLOUDMAKER RD.

P.R.S. #4 REPLACEMENT

DRAWING INDEX

Dwg No.	Rev.	Description
C001	2	CONSTRUCTION NOTES
C002	2	STANDARD DETAILS
C003	2	P.R.S. #4 MACKENZIE BOULEVARD
C004	2	SECTIONS & DETAILS
25-3947-P	1	CWS - 150 (6") PRV w/ 50 (2") PRV BYPASS (1/2)
25-3947-P	1	CWS - 150 (6") PRV w/ 50 (2") PRV BYPASS (1/2)



ISSUED FOR TENDER



1210 FOURTH AVENUE
PRINCE GEORGE, B.C.
V2L 3J4
TEL. (250) 562-1977
FAX (250) 562-1967

PROJECT No.:	1044-79
DATE:	05/06/25
PROJECT MANAGER:	LM
DESIGNER:	JSS
DRAFTSPERSON(S):	AS

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PROJECT CONSTRUCTION NOTES

1. CONTRACTOR TO UTILIZE SHORING SYSTEMS AND PROVIDE EXCAVATION AND BACKFILL SHORING PLAN, DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER FOR SUPPORT OF HIGHWAY STRUCTURE DURING CONSTRUCTION.
2. SHORED EXCAVATIONS WITHIN 4 M OF HIGHWAY ARE TO BE BACKFILLED AND COMPACTED UTILIZING SGSB COMPACTED TO 98% SPD.
3. CONTRACTOR TO PROVIDE AND IMPLEMENT A TRAFFIC MANAGEMENT PLAN (TMP) FOR CLOSURE OF ONE LANE OF HIGHWAY DURING CONSTRUCTION.
4. CONTRACTOR TO PROVIDE WRITTEN ISOLATION PLAN FOR ISOLATION AND WORKS ON POTABLE WATER SYSTEM IN ACCORDANCE WITH AWWA STANDARDS.

GENERAL CONSTRUCTION NOTES

1. ALL WORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE 2019 MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD)
2. THE LOCATION OF EXISTING UTILITIES, AS SHOWN ON THE DESIGN DRAWINGS, ARE APPROXIMATE ONLY AND MAY NOT BE FULLY ACCURATE OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A BC ONE CALL AND TO LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO ANY SITE WORKS.THE CONTRACTOR SHALL EXPOSE ALL TIE-IN LOCATIONS AND POTENTIAL POINTS OF CONFLICT AND CONFIRM DESIGN ELEVATIONS PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION. THE CONTRACTOR SHALL ASSUME ALL COSTS AND EXPENSES THAT MAY ARISE FROM DAMAGES AND REPAIR TO SUCH UTILITIES.
3. FOR ANY MATERIAL SUBSTITUTION OR CHANGE TO THE DESIGN, THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION. FAILURE TO GET WRITTEN APPROVAL FROM THE ENGINEER OF RECORD MAY RESULT IN A BREACH OF CONTRACT AND THE CONTRACTOR MAY HE HELD LIABLE FOR DAMAGES THAT MAY OCCUR.
4. SITE WORK DEMOLITION AND REMOVALS ALL REMOVALS ARE TO BE DISPOSED OF IN AN APPROVED OFF SITE LOCATION. THE CONTRACTOR IS TO PROTECT EXISTING STRUCTURES AND SPECIAL CARE IS TO BE TAKEN TO NOT DAMAGE EXISTING ITEMS OUTSIDE OF THE LIMIT OF REMOVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES THAT MAY OCCUR.
5. ASPHALT AND CONCRETE REMOVALS ALL ASPHALT AND CONCRETE THAT ARE TO BE REMOVED ARE TO BE SAWCUT ALONG THE LIMIT OF REMOVALS AND DISPOSED OF IN AN APPROVED OFF SITE LOCATION. SPECIAL CARE IS TO BE TAKEN TO NOT DAMAGE THE PAVEMENT OUTSIDE OF THE LIMIT OF REMOVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES THAT MAY OCCUR.
6. UNDERGROUND POWER AND COMMUNICATION CABLE DUCTS UTILITY LOCATION AND INSTALLATION SHALL BE AS PER ELECTRICAL ENGINEERING DESIGN DRAWINGS, UTILITY COMPANY SPECIFICATIONS, AND MANUFACTURES INSTRUCTIONS.
7. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT WORK SAFE B.C. REGULATIONS.

MASTER MUNICIPAL CONSTRUCTION DOCUMENTS 2019

DIVISION 1 - GENERAL REQUIREMENTS

1. PROJECT RECORD DOCUMENTS SHALL CONFORM TO SECTION 01 33 01 OF THE MMCD.
2. REFERENCE SPECIFICATIONS SHALL CONFORM TO SECTION 01 42 00 OF THE MMCD.
3. TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING SHALL CONFORM TO SECTION 01 55 00 OF THE MMCD.
4. ENVIRONMENTAL PROTECTION SHALL CONFORM TO SECTION 01 57 01 OF THE MMCD.
 - a. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ACCESS ROADS TO PREVENT ACCUMULATION OF MUD, DIRT, SAND, GRAVEL OR DEBRIS ON CITY ROADS, CITY LANDS OR PROVINCIAL HIGHWAYS.
8. PROJECT IDENTIFICATION SHALL CONFORM TO SECTION 01 58 01 OF THE MMCD.

DIVISION 3 - CONCRETE

1. CONCRETE REINFORCEMENT SHALL CONFORM TO SECTION 03 20 01 OF THE MMCD.
2. CONCRETE WALKS, CURBS AND GUTTERS (MMCD DRAWING C1-C9) SHALL CONFORM TO SECTION 03 30 20 OF THE MMCD.
 - a. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGN AND TRIAL MIX TEST RESULTS TO THE ENGINEER FOR REVIEW AT LEAST TWO WEEKS PRIOR TO COMMENCING WORK.
3. CONCRETE CAST-IN-PLACE SHALL CONFORM TO SECTION 03 30 53 OF THE MMCD.
4. PRECAST CONCRETE SHALL CONFORM TO SECTION 03 40 01 OF THE MMCD.

DIVISION 31 - EARTHWORKS

1. AGGREGATE AND GRANULAR MATERIALS SHALL CONFORM TO SECTION 31 05 17 OF THE MMCD.
 - a. SECTION 31 05 17 2.3 - PIT RUN GRAVEL REFER TO THE TABLE FOR MATERIAL GRADATION
 - b. SECTION 31 05 17 2.8 - SELECT GRANULAR SUBBASE (SGSB) REFER TO THE TABLE FOR MATERIAL GRADATION.
 - c. SECTION 31 05 17 2.9 - CRUSHED GRANULAR SUB-BASE REFER TO THE TABLE FOR MATERIAL GRADATION.
 - d. SECTION 31 05 17 2.10 - GRANULAR BASE (WGB, IGB) REFER TO THE TABLE FOR MATERIAL GRADATION.
2. EXCAVATING, TRENCHING AND BACKFILLING (MMCD DRAWING G4) SHALL CONFORM TO SECTION 31 23 01 OF THE MMCD.TRENCH BACKFILL FOR ALL UTILITY MAINS OR SERVICES SHALL CONSIST OF TYPE "3" FILL (APPROVED NATIVE MATERIAL), COMPACTED IN 200mm (LOOSE) THICK LIFTS TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY. THE TOP 300mm OF SUBGRADE IN ALL UTILITY TRENCHES SHALL BE COMPACTED IN 200mm (LOOSE) LIFTS TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY. CONTRARY TO SECTION 31 23 01 3.4.1 - PIPE INSTALLATION THE PIPE BEDDING AND SURROUND MATERIAL WILL CONFORM TO THE PIPE MANUFACTURERS RECOMMENDATIONS

DIVISION 32 - ROAD AND SITE IMPROVEMENTS

1. GRANULAR SUBBASE SHALL CONFORM TO SECTION 32 11 16.1 OF THE MMCD.
 - a. THE LAYER OF GRANULAR SUBBASE MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 200mm MEASURED IN LOOSE THICKNESS AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
2. GRANULAR BASE SHALL CONFORM TO SECTION 32 11 23 OF THE MMCD.
3. THE LAYER OF GRANULAR BASE COURSE MATERIAL SHALL BE COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY
4. ASPHALT PRIME SHALL CONFORM TO SECTION 32 12 13.2 OF THE MMCD.
5. HOT-MIX ASPHALT CONCRETE PAVING SHALL CONFORM TO SECTION 32 12 16 OF THE MMCD.
 - a. THE ASPHALT SURFACE SHALL CONSIST OF A MINIMUM THICKNESS OF 65mm OF MIX 'C' INSTALLED IN ONE LIFT, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL SUBMIT THE ASPHALT CONCRETE MIX DESIGN AND TRIAL MIX TEST RESULTS TO THE ENGINEER FOR REVIEW AT LEAST TWO WEEKS PRIOR TO COMMENCING WORK.
13. TOPSOIL AND FINISHED GRADING SHALL CONFORM TO SECTION 32 91 21 OF THE MMCD.
14. SEEDING SHALL CONFORM TO SECTION 32 92 20 OF THE MMCD.
 - g. REFER TO THE MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE 2020 STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION SECTION 257 - RE-VEGETATION SEEDING WITH A NORTHERN COSTAL SEED MIX.

DIVISION 33 - UTILITIES

1. CTV INSPECTION OF PIPELINES SHALL CONFORM TO SECTION 33 01 30.1 OF THE MMCD.
 - a. PERFORM CLOSED CIRCUIT TELEVISION INSPECTIONS (CCTV) OF INSTALLED STORM SEWERS BY CCTV CAMERA AND RECORDING DEVICES IN ACCORDANCE WITH WRC STANDARDS.
 - b. PERFORM CLOSED CIRCUIT TELEVISION INSPECTIONS (CCTV) OF INSTALLED SANITARY SEWERS BY CCTV CAMERA AND RECORDING DEVICES IN ACCORDANCE WITH WRC STANDARDS.
2. WATERWORKS SHALL CONFORM TO SECTION 33 11 01 OF THE MMCD.
 - a. WATER MAIN SHALL BE POLY VINYL CHLORIDE PRESSURE PIPE (PVC) TO AWWA C900, PRESSURE CLASS 235 (DR 18) TO THE DIMENSIONS SHOWN IN THE DESIGN DRAWINGS. THE WATER MAIN SHALL HAVE 3.0m MINIMUM COVER UNLESS NOTED OTHERWISE.
 - b. THRUST BLOCKS (MMCD DRAWING W1) SHALL BE CONSTRUCTED AS PER SECTION 33 11 01 OF THE MMCD.
 - c. GATE VALVES (MMCD DRAWING W3) SHALL BE CONSTRUCTED AS PER SECTION 33 11 01 OF THE MMCD.
 - d. MECHANICAL RESTRAINTS ALL FITTINGS ARE TO BE INSTALLED WITH DUCTILE IRON JOINT RESTRAINTS (COATED TO AWWA C219 / 210 / 213 / 550) COMPLETE WITH STUD BOLTS / RODS (ASTM A354, GR BC, SACRIFICIAL COATING WITH ZINC TO ASTM B633 OR CADMIUM TO ASTM B766, MIN 19Ø OR GREATER Ø) AND NUTS (ASTM A563, SACRIFICIAL COATING WITH ZINC TO ASTM B633 OR CADMIUM TO ASTM B766). STUD BOLTS AND NUTS ARE TO BE INSTALLED FINGER-TIGHT. RESTRAINT SHALL BE SUITABLE FOR HOST PIPE, FORD BOX UNIFLANGE 1300/C OR EQUAL. PIPE JOINTS TO BE EBAA IRON MEGALUG MECHANICAL JOINT OR APPROVED EQUIVALENT. ALL PIPE JOINTS WITHIN 12m OF ANY VERTICAL PIPE BEND ARE TO BE MECHANICALLY RESTRAINED.
 - e. FITTINGS SHALL BE CAST IRON FITTINGS DUCTILE IRON, CEMENT LINED TO AWWA C104 WITH TYTON OR ANSI/ASME B16.1 CLASS 125/150 FLAT FACE FLANGES, MEETING AWWA (C110, C111, C115, C150, C153), CL350. STAR PIPE OR EQUAL.
 - f. TESTING PROCEDURE SHALL CONFORM TO SECTION 33 11 01 OF THE MMCD AND THE LATEST VERSION OF THE ANSI/AWWA STANDARD FOR DISINFECTING WATER MAINS. PRIOR TO CONNECTING THE NEW WATER MAIN TO THE EXISTING WATER MAIN SYSTEM, THE WATER MAIN MUST BE PRESSURE TESTED, CHLORINATED, FLUSHED, AND BACTERIOLOGICAL TESTS CONDUCTED. IF THE CONTRACTOR WISHES TO UTILIZE CITY WATER TO PRESSURE TEST, CHLORINATE, AND FLUSH, THE CONTRACTOR MUST INSTALL A TEMPORARY DOUBLE BACK-FLOW PREVENTOR IN ACCORDANCE WITH THE ANSI/AWWA C510 STANDARDS.
 - PRESSURE TESTING OF THE WATER MAIN SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 33 11 01 OF THE MMCD. HYDROSTATIC AND LEAKAGE TESTING SHALL CONFORM TO ANSI/AWWA C900-07 STANDARDS. APPLY A LEAKAGE TEST PRESSURE OF 1.5 TIMES DESIGN WORKING PRESSURE OR 1035 KPa (150 psi), WHICHEVER IS HIGHER FOR MINIMUM OF 2 HOURS. ALL TESTING SHALL BE WITNESSED BY THE ENGINEER.
 - FLUSHING OF THE WATER MAIN SHALL BE IN ACCORDANCE WITH ANSI/AWWA STANDARD C651-14. FLUSHING SHALL BE CONDUCTED PRIOR TO BOTH THE PRESSURE TESTING AND PRIOR TO THE BACTERIOLOGICAL TESTING. FLUSHING VELOCITIES SHALL BE CONFIRMED WITH THE ENGINEER. THE CONTRACTOR IS TO OBTAIN APPROVAL FROM THE MUNICIPALITY PRIOR TO DISCHARGING AND CHLORINATED WATER INTO THE SANITARY SYSTEM.
 - CHLORINATION OF THE WATER MAIN SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 33 11 01 OF THE MMCD AND IN ACCORDANCE WITH ANSI/AWWA STANDARD C651-14. AN INITIAL CHLORINE RESIDUAL OF 50ppm IS REQUIRED THROUGHOUT THE ENTIRE WATER MAIN SYSTEM. AFTER 24 HOURS, A CHLORINE RESIDUAL OF 10ppm MUST BE PRESENT IN THE TEST SECTION. USE A TEST POINT INSTALLATION (MMCD DRAWINGS W5) IF REQUIRED.
 - THE CONTRACTOR IS RESPONSIBLE PERFORMING BACTERIOLOGICAL TESTS ON THE WATER MAIN IN ACCORDANCE WITH ANSI/AWWA STANDARD C651-14. BACTERIOLOGICAL TESTS SHALL BE TAKEN DAILY FOR A MINIMUM OF TWO DAYS. THE BACTERIOLOGICAL TESTS SHALL BE PERFORMED BY AN ACCREDITED LABORATORY APPROVED BY THE NORTHERN HEALTH AUTHORITY. ALL TESTING SHALL BE WITNESSED BY THE ENGINEER.

DIVISION 34 - TRANSPORTATION

1. TRAFFIC SIGNALS SHALL CONFORM TO SECTION 34 41 13 OF THE MMCD.
 - j. TRAFFIC SIGNS TO CONFORM TO THE MINISTRY OF TRANSPORTATION MANUAL OF STANDARD TRAFFIC SIGNS AND PAVEMENT MARKINGS. ALL SIGNS SHALL BE DIAMOND GRADE.

1	05/06/25	REV #1 PER ADDENDUM	#1 LM
NO.	DATE (D/M/Y)	REVISION	BY

ISSUED FOR TENDER



CONSULTANTS PROJECT No.:	1044-79
DRAWN: AS	
CHECKED: LM	
ENGINEER: JSS	
DATE: 06/06/25	
SCALES:	
SCALES:	

DISTRICT OF MACKENZIE
MACKENZIE BLVD. &
LITTLE CLOUDMAKER RD.
P.R.S. #4 REPLACEMENT
CONSTRUCTION NOTES

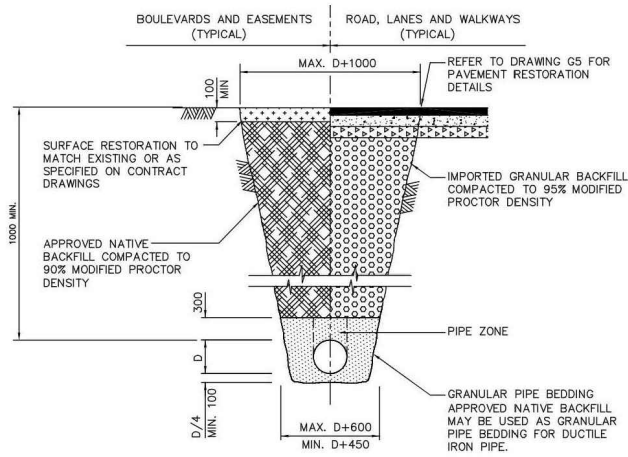
DRAWING No.

C001

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MMCD

STANDARD DETAIL DRAWINGS



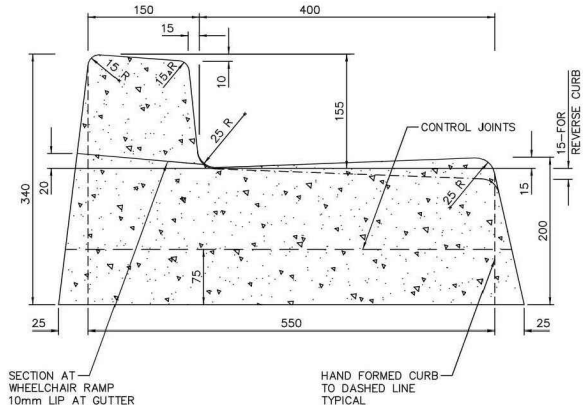
NOTE: 1. TRENCHING TO COMPLY WITH ALL REQUIREMENTS OF WORKSAFE BC.
2. REFER TO CONTRACT DRAWINGS, SECTION 31 23 01 FOR DETAILED SPECIFICATIONS.
3. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
NOT TO SCALE

UTILITY TRENCH

DRAWING NUMBER:
G4

MMCD

STANDARD DETAIL DRAWINGS



BARRIER CURB WITH GUTTER

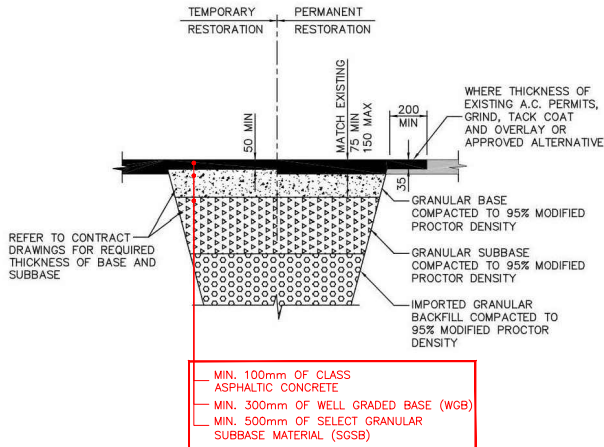
NOTE: 1. SECTION SHOWN IS FOR MACHINE EXTRUDED CURBS.
2. REFER TO CONTRACT DRAWINGS, SECTION 03 30 20 FOR DETAILED SPECIFICATIONS.
3. REFER TO DRAWING C1, C2 AND C3 FOR INSTALLATION DETAILS.
4. REFER TO DRAWING C4 FOR DIMENSIONS OF NARROW BASE CURB AND GUTTER.
NOT TO SCALE

CONCRETE BARRIER CURB – WIDE BASE

DRAWING NUMBER:
C5

MMCD

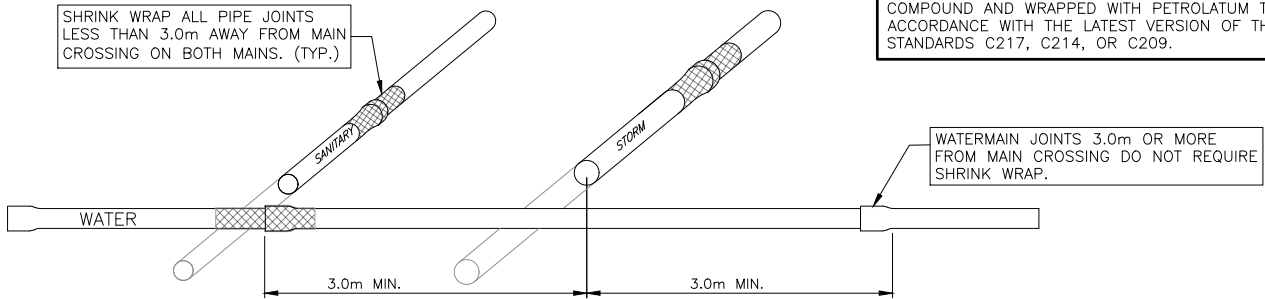
STANDARD DETAIL DRAWINGS



NOTE: 1. REFER TO CONTRACT DRAWINGS, SECTIONS 31 23 01 AND 32 12 16 FOR DETAILED SPECIFICATIONS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
NOT TO SCALE

PAVEMENT RESTORATION

DRAWING NUMBER:
G5



MAIN CROSSING DETAIL
SCALE: N.T.S.

NOTE:
THE NEAREST JOINTS MUST BE 3m OR MORE FROM THE CROSSING. IF THE JOINTS ARE LESS THAN 3m FROM THE CROSSING THEN WRAP ALL JOINTS ON EACH SIDE OF THE CROSSING WITH HEAT SHRINK PLASTIC OR PACKED WITH COMPOUND AND WRAPPED WITH PETROLATUM TAPE IN ACCORDANCE WITH THE LATEST VERSION OF THE AWWA STANDARDS C217, C214, OR C209.

LEGEND

NO.	DATE (D/M/Y)	REV #1	PER ADDENDUM #1	LM
1	05/06/25	REV #1	PER ADDENDUM #1	LM

ISSUED FOR TENDER

L&M
ENGINEERING LIMITED

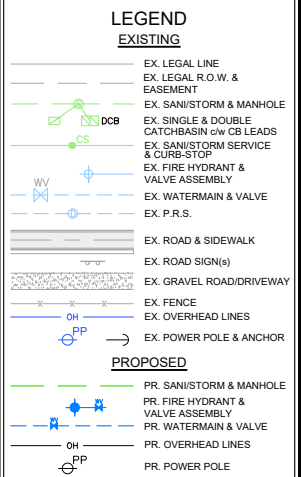
MACKENZIE
BRITISH COLUMBIA

CONSULTANTS PROJECT No.:	1044-79
DRAWN:	AS
CHECKED:	LM
ENGINEER:	JSS
DATE:	06/06/25
SCALES:	
SCALES:	

DISTRICT OF MACKENZIE
MACKENZIE BLVD. &
LITTLE CLOUDMAKER RD.
P.R.S. #4 REPLACEMENT
STANDARD DETAILS

DRAWING No.
C002

1. PROPERTY LINES SHOWN ARE APPROXIMATE.
2. UNDERGROUND SERVICES AND LOCATIONS ARE APPROXIMATE AND MUST BE VERIFIED BEFORE EXCAVATION.
3. COORDINATE WATER DISRUPTION W/ DISTRICT 1 WEEK PRIOR TO WORK.



1	05/06/25	REV #1 PER ADDENDUM #1	LM
NO.	DATE (D/M/Y)	REVISION	BY



CONSULTANTS PROJECT No.: 1044-79	
DRAWN: AS	
CHECKED: LM	
ENGINEER: JSS	
DATE: 06/06/25	
SCALES: 1:75	
SCALES:	

DISTRICT OF MACKENZIE
MACKENZIE BLVD. &
LITTLE CLOUDMAKER RD.
P.R.S. #4 REPLACEMENT
SITE PLAN

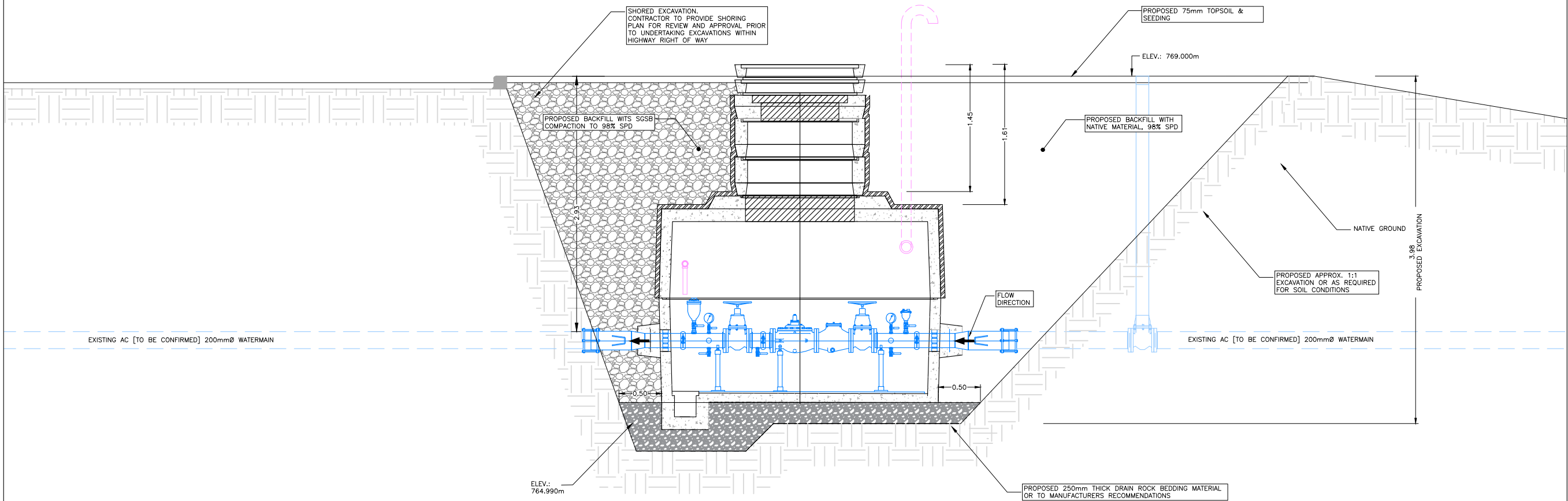
DRAWING No.

C003



THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS THE PROPERTY OF L&M ENGINEERING LIMITED AND MAY NOT BE REPRODUCED WITHOUT WRITTEN PERMISSION OF SAME AND UNLESS THE REPRODUCTION CARRIES THEIR NAME, ALL DESIGNS AND OTHER INFORMATION SHOWN ON THIS DRAWING ARE FOR USE ON THE SPECIFIED PROJECT ONLY AND SHALL NOT BE USED OTHERWISE WITHOUT WRITTEN PERMISSION OF L&M ENGINEERING LIMITED.

GA:\Job Files\1044-1044 - District of Mackenzie\79 - 2025 Pressure Reduction Station Placement\02 - Design\03 - CAD Files\104479 - BASF.dwg



SECTION A
1:25

ISSUED FOR APPROVAL

LEGEND

NO.	DATE (D/M/Y)	REVISION	BY
1	05/06/25	REV #1 PER ADDENDUM #1	LM

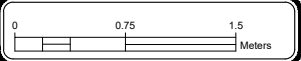
ISSUED FOR TENDER

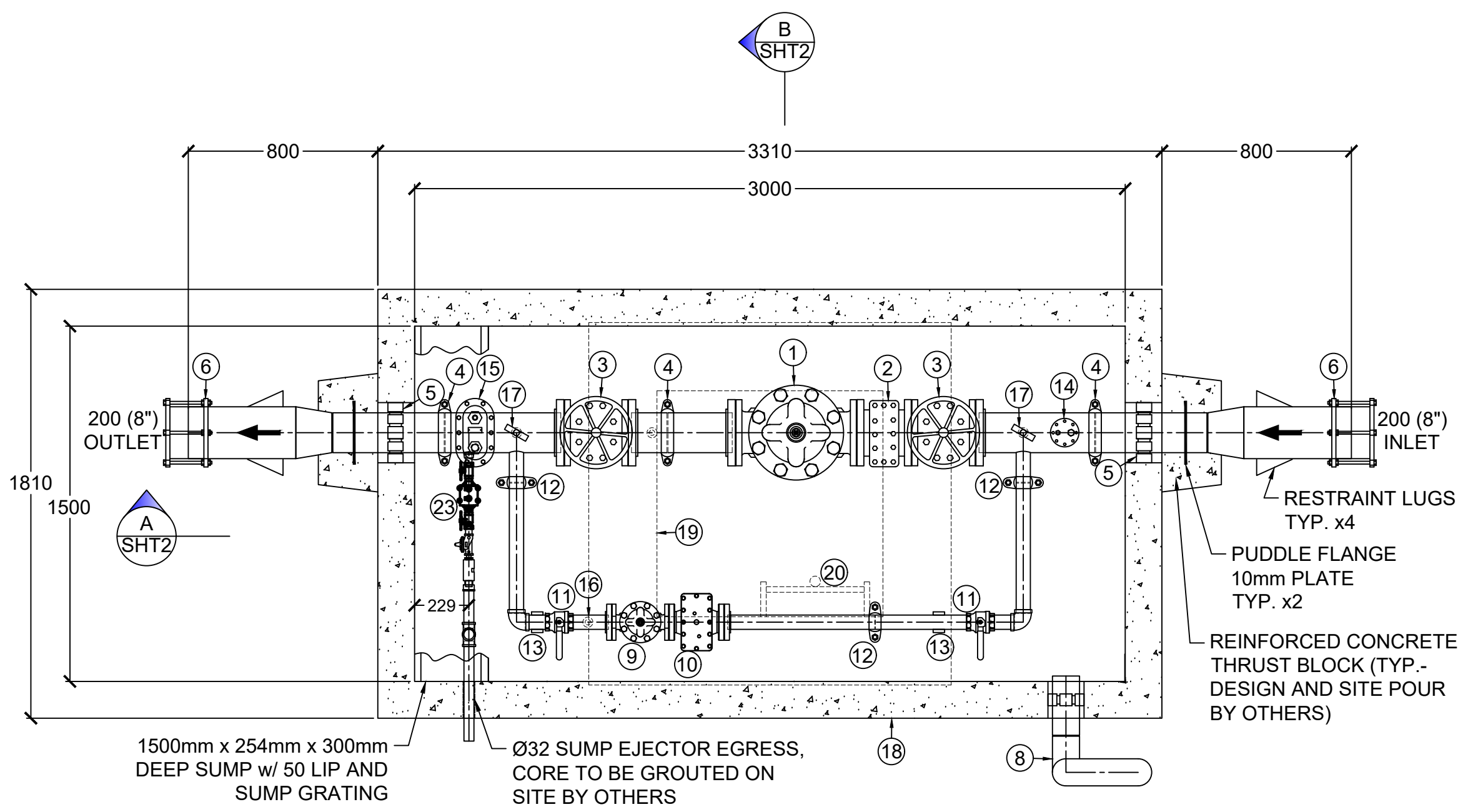


CONSULTANTS PROJECT No.:	1044-79
DRAWN:	AM
CHECKED:	LM
ENGINEER:	JSS
DATE:	06/06/25
SCALES:	

DISTRICT OF MACKENZIE
MACKENZIE BLVD &
LITTLE CLOUDMAKER
P.R.S.#4 REPLACEMENT
SECTIONS & DETAILS


DRAWING No.
C004

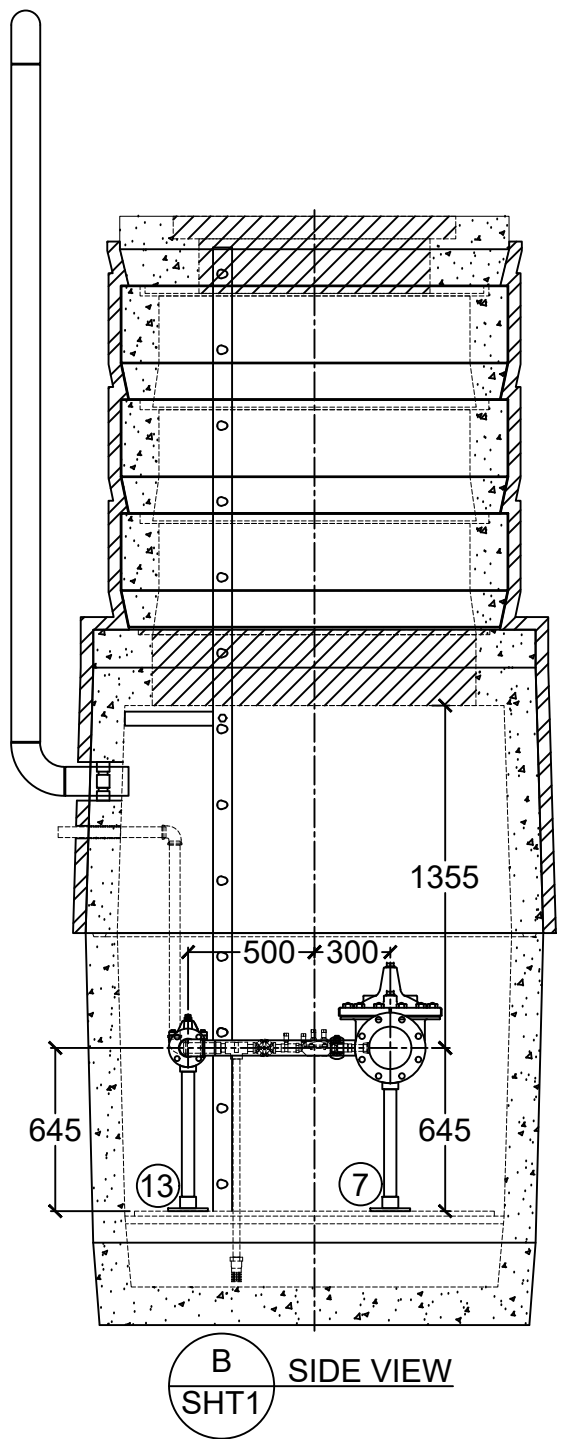
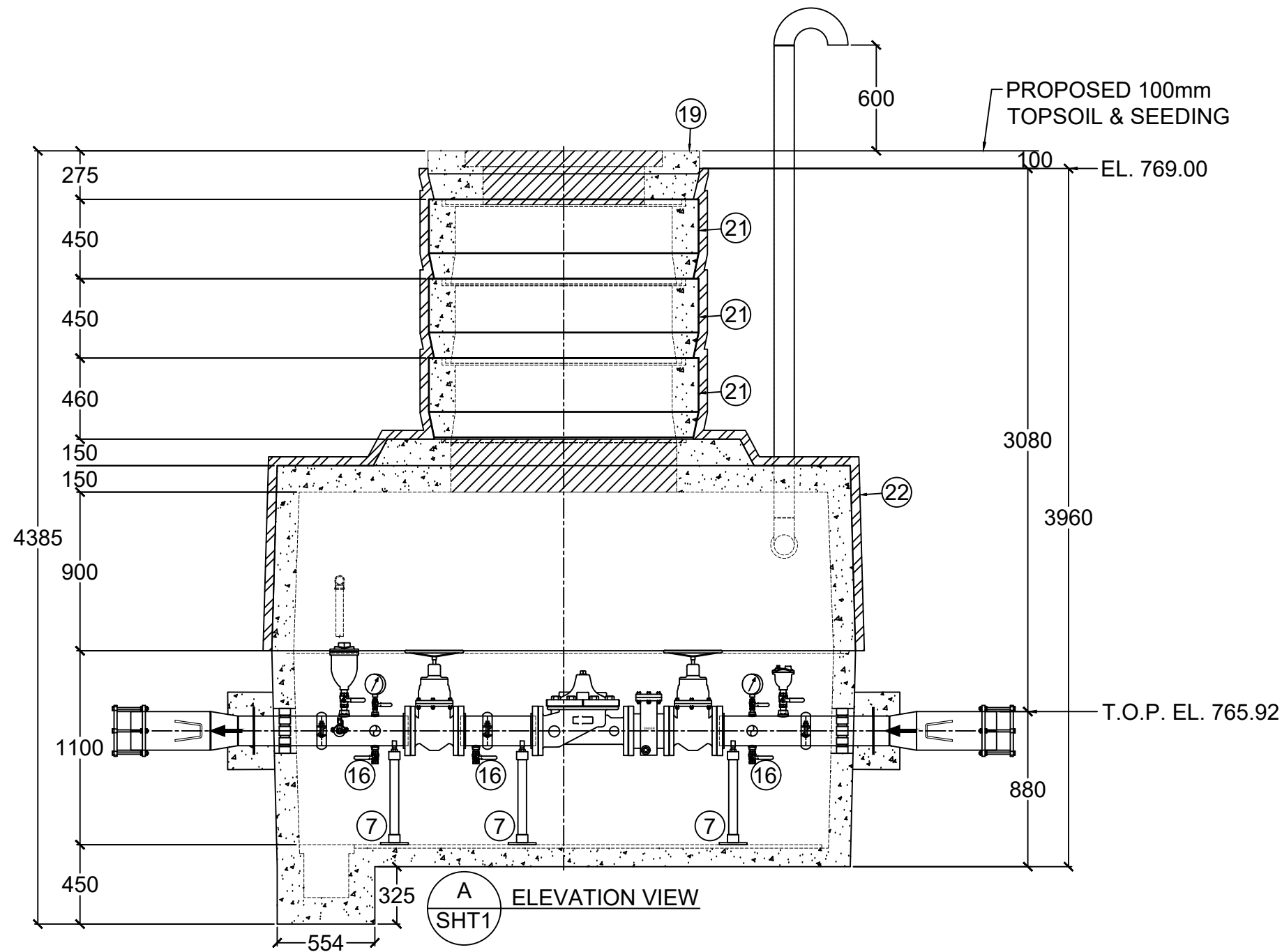




MATERIALS LIST		
ITEM	QTY	DESCRIPTION
1	1	150 (6") CLA-VAL 90-01BSVYKX Pressure Reducing Valve w/ S.S. Braided Hose, Bronze Pilot with SS Trim, FBE Globe Style Body and X101 Position Indicator
2	1	150 (6") SINGER Strainer w/ S.S. Blow Off Valve
3	2	150 (6") MUELLER A-2362 NRS Gate Valve w/ Handwheel
4	3	150 (6") VICTAULIC 89 Galv. Grooved Coupling
5	2	150 (6") LINK SEAL Assembly
6	2	200 (8") ROBAR 1506 External Transition Coupling
7	3	150 (6") CWS Adj. Stainless Steel Pipe Support
8	1	100 (4") CWS Sch. 10 304 Stainless Steel Vent Pipe w/ Link Seal Assembly and Bird Screen
9	1	50 (2") CLA-VAL 90-01BSVYKX Pressure Reducing Valve w/ S.S. Braided Hose, Bronze Pilot with SS Trim, FBE Globe Style Body and X101 Position Indicator
10	1	50 (2") SINGER Strainer w/ S.S. Blow Off Valve
11	2	50 (2") MAS G2E Stainless Steel Ball Valve
12	3	50 (2") VICTAULIC 89 Grooved Coupling
13	2	50 (2") CWS Adj. Stainless Steel Pipe Support
14	1	25 (1") VAL-MATIC 15A.3DISV Air Valve w/ MAS G2E S.S. Isolation Ball Valve
15	1	25 (1") VAL-MATIC 201C.2DISV Combination Air Valve w/ MAS G2E S.S. Isolation Ball Valve
16	4	19 (¾") Drain w/ MAS G2E S.S. Isolation Ball Valve
17	2	WINTERS PFQ-LF Pressure Gauge w/ Gauge Tree and MAS G2E S.S. Isolation Ball Valve
18	1	AE 3152 Precast Concrete Chamber c/w White Interior, Black Exterior and Cored Holes
19	1	CWS 36"x36" Aluminum Single Door Hatch w/ Pedestrian Loading, Padlock Recess and Insulation - Cast into Custom AE Concrete Hatch Collar
20	1	COAST WATER SYSTEMS Aluminum Ladder c/w Safety Post - Shipped Loose Installed By Others
21	3	AE 1.5 Comm Riser - 450mm Tall
22	LOT	50 (2") Sprayfoam Insulation
23	1	19 (¾") CWS Sump Ejector w/ DCVA, Float Valve, Fluid Ejector and Foot Valve

FOR INQUIRIES ABOUT THIS PREPACKAGED CHAMBER, PLEASE CALL BRIAN KELENC @ 604-460-3622 OR EMAIL SALES@COASTWATER.CA FOR MORE INFORMATION

<div>CHAMBER (AE 3152)</div> <div>WEIGHT (APPROX. UNTIL SHIPPING)</div> <div>TOP: 12,900 LBS / 5,830 KGS</div> <div>BOTTOM: 11,500 LBS / 5,190 KGS</div> <div>HATCH COLLAR: 2,100 LBS / 953 KGS</div> <div>PIPE TRAIN: 2,300 LBS / 1,043 KGS</div> <div>INSIDE DIMENSIONS:</div> <div>3000 L x 1500 W x 2000 H</div>	<div>NOTES</div> <div>- DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED</div> <div>- ALL FLANGES TO BE 150psi WORKING PRESSURE. BOLT PATTERN TO ANSI B16.5</div> <div>- ALL PIPE AND FITTINGS TO BE SCH. 40S 304 STAINLESS STEEL</div> <div>- VENT PIPE TO BE SCH. 10 304 STAINLESS STEEL</div> <div>- NUTS TO BE ASTM F594 AND BOLTS TO BE ASTM F593 STAINLESS STEEL w/ EPDM GASKETS</div>	REVISION				<div></div> <div>COAST WATER</div> <div>S Y S T E M S</div>	PROJECT NAME: DISTRICT OF MACKENZIE MACKENZIE BLVD & LITTLE CLOUDMAKER RD. PRV STATION #4				
							DESCRIPTION: 150 (6") PRV w/ 50 (2") PRV BYPASS				
							DATE: JUNE 3, 2025		SCALE: 1:20		
							QUOTE: --- / OE: ---		SHEET: 1 OF 2		
							CHECKED BY: BK		DRAWING NO.:		REV.
							DRAWN BY: SH		25-3947-P		
		NO.	DESCRIPTION	DATE	BY						
		A									
B											
C											
D											
E											



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CHAMBER (AE 3152)

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NOTES

- DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED
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- VENT PIPE TO BE SCH. 10 304 STAINLESS STEEL
- NUTS TO BE ASTM F594 AND BOLTS TO BE ASTM F593 STAINLESS STEEL w/ EPDM GASKETS

REVISION

NO.	DESCRIPTION	DATE	BY
A			
B			
C			
D			
E			



PROJECT NAME: DISTRICT OF MACKENZIE
MACKENZIE BLVD & LITTLE CLOUDMAKER RD. PRV STATION #4

DESCRIPTION: 150 (6") PRV w/ 50 (2") PRV BYPASS

DATE: JUNE 3, 2025

SCALE: 1:30

QUOTE: --- / OE: ---

SHEET: 2 OF 2

CHECKED BY: BK

DRAWING NO.:

DRAWN BY: SH

25-3947-P

REV.

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